

lightpipe, to which the substrate is connected at its outer surface 42 or is an integral part thereof, to the photomultiplier (PMT), such as shown in Figs.1 and 2.

The above paragraph has been amended as follows:

On page 12, line 8, of the specification, -- μ -- has been inserted before "m" to correct an inadvertent omission as originally filed, so that line 8 now reads -about 10 to 400 μ m in thickness, 36 is bonded to the-.

IN THE CLAIMS

Please replace original Claim 4 with the following amended Claim 4:

Clean version of replacement claim 4

4. The method of making a scintillator for an electron microscope comprising:

providing a disc shaped substrate of optically clear material having a first surface, a second oppositely facing surface, and an outer edge side wall;

applying a coating of indium tin oxide on said first surface of said substrate by sputtering;

providing an electrical conducting retaining ring having a non-oxidizing surface, an internal size to fit in close contacting engagement with said side wall of said substrate, and a radially inwardly extending lip on one end;

applying electrical conducting adhesive means on at least the radially outer edge portion of the exposed surface of said indium tin oxide coating;

fitting said retaining ring onto said substrate in close contacting engagement with said side wall of said substrate and said lip overlying in close contacting engagement with said radially outer edge portion of said indium tin oxide coating having said adhesive means thereon to bond said ring to said coating and said substrate; and

depositing scintillation material onto and in bonding relationship with said exposed surface of said coating.

Please add the following new claims:

5. The scintillator as claimed in Claim 1 wherein:

said retaining ring comprises copper having an exterior coating of gold;

said substrate comprises quartz; and

said scintillator material comprises phosphor.

6. The scintillator as claimed in Claim 2 wherein:

said retaining ring has a side wall having a thickness of substantially 5 to 50 mils..

7. The scintillator as claimed in Claim 1 wherein:

said scintillator material is planar in shape and has a thickness of approximately 10 to 400 μ m.

8. The scintillator as claimed in Claim 6 wherein:

said scintillator material has a thickness of approximately 10 to 400 μ m.